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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/398,189 09/17/99 KANAMORI

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MM91/0213

EXAMINER
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RESTON VA 20191

ART UNIT	PAPER NUMBER
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2814  
DATE MAILED:

02/13/01

**Please find below and/or attached an Office communication concerning this application or proceeding.**

**Commissioner of Patents and Trademarks**

**Office Action Summary**

Application No.

09/398,189

Applicant(s)

KANAMORI, JUN

Examiner

Steven H. Rao

Art Unit

2814

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 17 November 2000.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☐ Claim(s) 1-9 and 19-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) 1-9 and 19-22 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claims \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. § 119**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

**Attachment(s)**

- 15) ☐ Notice of References Cited (PTO-892)
- 16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 17) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 18) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 19) ☐ Notice of Informal Patent Application (PTO-152)
- 20) ☐ Other:

***Response to Amendment***

Applicants' amendment filed November 17, 2000 has been entered on December 05, 2000. Therefore claims 1-9 as amended by the amendment and claims 19-22 added by the amendment are currently pending in the application.

***Drawings***

Applicants are reminded to file the drawings as early as possible to ensure that all elements of the claimed invention are properly shown in the drawing.

***Specification***

Applicants' state that the instant application is a divisional application of serial no. 09/342,751. Therefore Applicants' are required to identify the parent case and its status in line one of the specification. Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 2 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In claim 22 line 1 recites "said providing " this is indefinite, the applicant may recite " said step of providing" or something similar.. In lines 3-5 silicide regions completely formed and an appropriate amount of silicon remaining are indefinite and it not clear what applicants' mean by these expressions. Appropriate correction is required.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-9 and 19-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicants' admitted prior art (AAPR) and Doan et al (U.S. Patent No. 5,946,595, herein after Doan).

With respect to claims 1-9 and AAPR teaches the steps of fabricating a semiconductor device using a self aligned silicide as stated previously.

AAPR does not specifically mention a polysilicon layer( supplemental silicon layer) that completely covers the device.

Doan in fig. 3 layer # 24 teaches a supplemental polysilicon layer over the entire surface area to form an implant mask and improve the local interconnect formation.

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to include Doan's polysilicon layer with AAPR to form an implant mask and improve the local interconnect formation. ( Doan col. 5 lines 1-5 , etc.).

With respect to claims 19 and 20, See AAPR fig. 1C describes a substrate of Si-substrate layer # 16 on which a BOX layer # 14 is formed and top of the BOX layer a SOI layer is formed and wherein the first reacted silicide layer # 30 extending into the into the SOI layer.

With respect to claim 21, AAPR page 7 lines 10-14 describes the cleaning after the first RTA.

With respect to claim 22 to the extent understood, it recites the SOI having an completely formed first-reacted silicide regions and silicon remaining after the second RTA process.

***Response to Arguments***

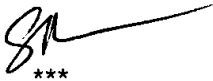
Applicant's arguments filed November 17, 2000 have been fully considered but they are not persuasive because as shown above prior art shows the formation of a polysilicon layer after first RTA, Applicants' other arguments are inherently present in the prior art. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steven H. Rao whose telephone number is 703-306-5945. The examiner can normally be reached on M-F, 8.00 to 5.00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Olik Chaudhuri can be reached on 703- 306-2794. The fax phone numbers for the organization where this application or proceeding is assigned are 703-308-7722 for regular communications and 703-308-7724 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703- 308-0956.

  
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February 1, 2001

  
OLIK CHAUDHURI  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2800